



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/077,094	02/14/2002	Alejandro R. Holcman	020043	1419

23696 7590 01/17/2007  
QUALCOMM INCORPORATED  
5775 MOREHOUSE DR.  
SAN DIEGO, CA 92121

EXAMINER
----------

HALIYUR, VENKATESH N

ART UNIT	PAPER NUMBER
----------	--------------

2616

SHORTENED STATUTORY PERIOD OF RESPONSE	NOTIFICATION DATE	DELIVERY MODE
3 MONTHS	01/17/2007	ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Notice of this Office communication was sent electronically on the above-indicated "Notification Date" and has a shortened statutory period for reply of 3 MONTHS from 01/17/2007.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

us-docketing@qualcomm.com  
kscanla@qualcomm.com  
t\_ssadik@qualcomm.com

## Office Action Summary

Application No.

10/077,094

Applicant(s)

HOLCMAN ET AL.

Examiner

Venkatesh Haliyur

Art Unit

2616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 31 October 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-23 (claim 24 canceled) is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application
- ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

1. Claims 1-23 are pending in the application. Claim 24 is canceled.
2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 10/31/2006 has been entered.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wang et al [US Pat: 6,603,761] in view of Chheda [US Pat: 6,266,529].

Regarding claims 1,8,17, Wang et al in the invention of "Using internet and internet protocols to bypass PSTN, GSM MAP, and ANSI-41 networks for wireless telephone call delivery" disclosed a method of effecting handoff of a mobile station (item

Art Unit: 2616

**240 of Fig 3, dual mode mobile device, col 2, lines 14-67, col 3, lines 1-32)** from a first base station (**item 205 of Fig 1**) in a first cellular communications system controlled by a first mobile switching control station (**MSC, item 210 of Fig 3**) to a second base station (**item 255 of Fig 3**) in a second cellular system controlled by a second mobile switching control station (**MSC in item 250 of Fig 3**), said first cellular communications system being a CDMA system (**item 200, col 6, lines 11-22**), and said second cellular system being a GSM system (**item 250, col 6, lines 23-65**), the method comprising: measuring at the mobile station a first parameter (**call handoff data**) of a first signal transmitted by said first base station; measuring at the mobile station a second parameter (**call handoff data to provide service for multi-mode subscribers in GSM and CDMA areas, col 2, lines 1-26**) of a second signal transmitted by said second base station (**col 4, lines 1-31, Fig 1**); communicating a signal quality message from the mobile station via the first base station to said first mobile switching control station, when the first and second parameters reach a predetermined condition (**handoff conditions, col 4, lines 24-60, Table 1**); generating at the first mobile switching control station an Application Data Delivery Service (**call delivery data**) message containing handoff data, the ADDS message being a type of tunneling (**Mobile IP tunnel**) mechanism which transparently passes within the CDMA system GSM parameters; communicating the ADDS message from said first mobile switching control station to said mobile station; generating at the mobile station a Mobile Application Protocol (MAP) message containing the handoff data (**col 4, lines 61-67, col**

Art Unit: 2616

**5, lines 1-43**); and communicating the MAP message from the mobile station to the second mobile switching control station (**col 5, lines 64-67, col 6, lines 1-65, Figs 1-3**).

Wang et al disclosed measuring the first and second parameters as call handoff data to provide service for dual mode subscribers in CDMA and GSM area, but fails to disclose that first and second parameters correspond to signal strength to communicate signal quality from mobile station (**Wang et al, col 2, lines 1-26, col 5, lines 7-24**).

However, Chheda in the invention of "Method For CDMA Handoff in the Vicinity of Highly Sectorized Cells" disclosed a method measuring at the mobile station a first parameter of a first signal transmitted by said first base station (**Figs 2-3, col 5, lines 55-67, col 6, lines 1-15, col 6, lines 49-67, col 7, lines 1-52**) and measuring at the mobile station a second parameter of a second signal transmitted by said second base station communicating a signal quality message from the mobile station via the first base station to said first mobile switching control station (**Fig 4, col 7, lines 53-67, col 8, lines 1-41**), when the first and second parameters reach a predetermined condition (**thresholds**) (**col 3, lines 4-27, col 5, lines 55-67, col 6, lines 1-15**). Therefore it would have been obvious for one of ordinary skill in the art at the time the invention was made to use the method of communicating signal quality information from mobile station in the first and second parameters corresponding to signal strength in the signals when the first and second parameters reach a predetermined condition for calls in progress to be handed over without interruption as taught by Chheda (**col 3, lines 4-26**) in the system of Wang et al to measure at the mobile station a first parameter of a first signal transmitted by said first base station and

Art Unit: 2616

measuring at the mobile station a second parameter transmitted by the second base station for determining the quality of signal strength for handoffs. One is motivated as such in order to use the method of measuring signal strength information at mobile station in the signals transmitted by the base stations of adjacent cells for allowing handoff of calls in progress without interruptions to provide seamless communication.

Regarding claims 2-4,9-11,18-20, Wang et al disclosed generating at the second mobile switching control station channel information identifying a channel (**col 8, lines 32-43**) in the second communications system for the mobile station and establishing communication between said mobile station and said second base station in the identified channel and discontinuing (**bypass**) communication between said mobile station and said first base station (**bypass VLR/HLR interaction, col 10, lines 9-50, Fig 8**).

Regarding claims 5,12,21, Wang et al disclosed measuring the first and second parameters as call handoff data to provide service for dual mode subscribers in CDMA and GSM area, but fails to disclose that first and second parameters correspond to signal strength to communicate signal quality from mobile station (**Wang et al, col 2, lines 1-26, col 5, lines 7-24**). However, Chheda disclosed a method measuring at the mobile station a first parameter of a first signal transmitted by said first base station (**Figs 2-3, col 5, lines 55-67, col 6, lines, col 6, lines 1-15, col 6, lines 49-67,col 7, lines 1-52**) and measuring at the mobile station a second parameter of a second signal transmitted by said second base where in the parameters corresponds to signal strength (**Fig 4, col 7, lines 53-67, col 8, lines 1-41**). Therefore it would have been

Art Unit: 2616

obvious for one of ordinary skill in the art at the time the invention was made to use the method of communicating signal quality information from mobile station in the first and second parameters corresponding to signal strength in the signals when the first and second parameters reach a predetermined condition for calls in progress to be handed over without interruption as taught by Chheda (**col 3, lines 4-26**) in the system of Wang et al to measure at the mobile station a first parameter of a first signal transmitted by said first base station and measuring at the mobile station a second parameter transmitted by the second base station for determining the quality of signal strengths for handoffs. One is motivated as such in order to use the method of measuring signal strength information at mobile station in the signals transmitted by the base stations of adjacent cells for allowing handoff of calls in progress without interruptions to provide seamless communication.

Regarding claims 6-7,13-14,22-23, Wang et al disclosed handoff data includes timing information and handoff data includes authentication data (**col 4, lines 5-38**).

Regarding claims 15-16, Wang et al disclosed passing handoff data for uninterrupted service for multi-mode mobile device user located in CDMA area and roaming in to a GSM service area or vice versa (**col 2, lines 14-26, col 3, lines 19-29**), but fails to disclose that the first transceiver chain is active when the second transceiver chain is inactive and wherein the second transceiver chain is active when the first transceiver chain is inactive. However, Chheda disclosed a method wherein first transceiver chain is active (**tx/rx antenna, item 20 of Fig 2, col 6, lines 49-67,col 7, lines 1-52**) when the second transceiver chain is inactive and wherein the second

Art Unit: 2616

transceiver chain is active when the first transceiver chain is inactive (**keeping the strong channels in the active set of cells, col 3, lines 4-26**). Therefore it would have been obvious for one of ordinary skill in the art at the time the invention was made to use the method of storing active and inactive channels from transceivers as taught by Chheda (**col 3, lines 4-26, col 9, lines 16-38**) in the system of Wang et al to select a channel that is active with quality signal strength. One is motivated as such in order to use the method of maintaining active and inactive channel sets to transmit and receive maximum strength signals at the mobile for effecting uninterrupted call handoffs when an user moves from CDMA service area to GSM service area or vice versa.

### ***Conclusion***

5. Any inquiry concerning this communication or earlier communications should be directed to the attention to Venkatesh Haliyur whose phone number is 571-272-8616. The examiner can normally be reached on Monday-Friday from 9:00AM to 5:00 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wing Chan can be reached @ (571)-272-7493. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the group receptionist whose telephone number is (571)-272-2600 or fax to 571-273-8300.

6. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published



Art Unit: 2616

applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197(toll-free).

Venkatesh Haliyur

Patent Examiner

vh  
1/8/07



WING CHAN  
SUPERVISORY PATENT EXAMINER